In the Specification

Please amend the paragraph beginning at page 18, line 16 through page 19, line 3 as follows:

The growing peptide chain was added to the amide-resin using the general amino acid cycle as follows: 500 µL DMF is added to each reaction well to "wet the frit," 3-fold excess amino acid starting from the C-terminus is added [~~400 µM~~ 400 µL of 0.5M solution in 0.5M N-hydroxybenzotriazole (HOBt) in DMF] followed by the addition of 400 µL 0.5M N,N'-diisopropylcarbodiimide (DIC) in DMF and the reaction well volume is brought up to 3mL using DMF. The coupling reaction is mixed for 1hr at 500 rpms, followed by emptying of the reaction block by positive nitrogen gas pressure. A second coupling reaction is performed by the addition of 500 µL DMF to each reaction vessel, followed by the addition of 400 µL of the respective amino acid (3-fold excess), 400 µL 0.5M O-benzotriazolyl-N,N,N',N'-tetramethyluronium hexafluorophosphate (HBTU), 300 µL 1M DIEA, the reaction well volume is brought up to 3 mL with DMF, and mixed at 500 rpm for 1 hr. After the second coupling cycle, the reaction block is emptied and the resin-Nα-protected peptide is washed with DCM (4.5 mL 4 times). Nα-Boc deprotection is performed by the addition of 4 mL 50% TFA, 2%anisole in DCM and mixed for 5 min at 500 rpms followed by a 20 min deprotection at ~~20 min~~ 500 rpm. The reaction well is washed with 4.5 mL DCM (4 times), neutralized with 10% DIEA (3 min, 500 rpms, 2 times) followed by a DCM wash (4.5 mL, 2 min, 500 rpms 4 times), and the next coupling cycle is performed as described above.

Please amend the paragraph at page 19, lines 4-13 as follows:

The Fmoc and OFm protecting groups are removed from Dpr and Asp, respectively by treatment with 4.5 mL 25% piperidine in DMF (20 min at 500 rpm) with a positive Kaiser test results. The lactam bridge between the Asp and Dpr amino acids is formed using 5-fold excess benziotriazole-1-yloxy-tris-(dimethylamino) phosphonium hexafluorophosphate (BOP) and 6-fold

excess DIEA as coupling agents and mixing at 500 rpms. The lactam bridges were formed (negative Kaiser test) after approximately 3 days at room temperature. Deprotection of the remaining amino acid side chains and cleavage of the amide-peptide from the resin was performed by incubation the peptide-resin with anhydrous hydrogen fluoride (HF, 5 mL, 0°C, 1hr) and 5% m-cresol, 5% thioanisole as scavengers.

Please amend the paragraph at page 28, lines 5-8 as follows:

In contrast, the peptide of SEQ ID NO:14 contains the HIS^6 amino acid and the AGRP residues in the Phe-Phe-Arg orientation. SEQ ID NO:14 resulted in partial agonist activities and no antagonist activity at the MC1R, MC3R, and [[MC4R]] MC5R with little observable binding or activity at the MC4R.

Please amend the paragraph at page 30, lines 23-29 as follows:

The peptide of SEQ ID NO:17 (Ac-Ser-Tyr-Ser-Nle-Glu-His-Arg-DPhe-Phe-Gly-Lys-Pro-Val-NH_2), resulted in a potent nM mMC1R agonist possessing high nM agonist activity at the mMC5R, μM agonist activity at the mMC3R and only slight agonist activity at the mMC4R (not an antagonist and does not bind to the mMC4R at greater than 25% specific binding at 10μM concentrations. Thus, SEQ ID NO:17 is a 850-fold MC1R versus MC3R selective, >16-fold [[MC4R]] MC5R versus MC3R selective, and 62-fold MC1R versus MC5R selective peptide.